

Report Date: 30 Jun 2014

**Summary Report for Individual Task
551-88L-3069
Troubleshoot an Oil and Water Separator
Status: Approved**

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD5 - This product/publication has been reviewed by the product developers in coordination with the [installation/activity name] foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

Condition: Given an oily water separator aboard a vessel, at sea, at anchor or moored alongside a pier, day or night, under all sea and weather conditions, while wearing appropriate PPE, (i.e. hearing protection, Nitrile gloves, eye protection, etc.), lock out tag out kit and a marine rail tool box.

Standard: The Soldier correctly troubleshoots an oily water separator aboard an Army vessel, IAW the appropriate Technical Manual and local SOPs, without injury to self or others and without damage to equipment.

Special Condition: None

Safety Risk: Medium

MOPP 4:

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

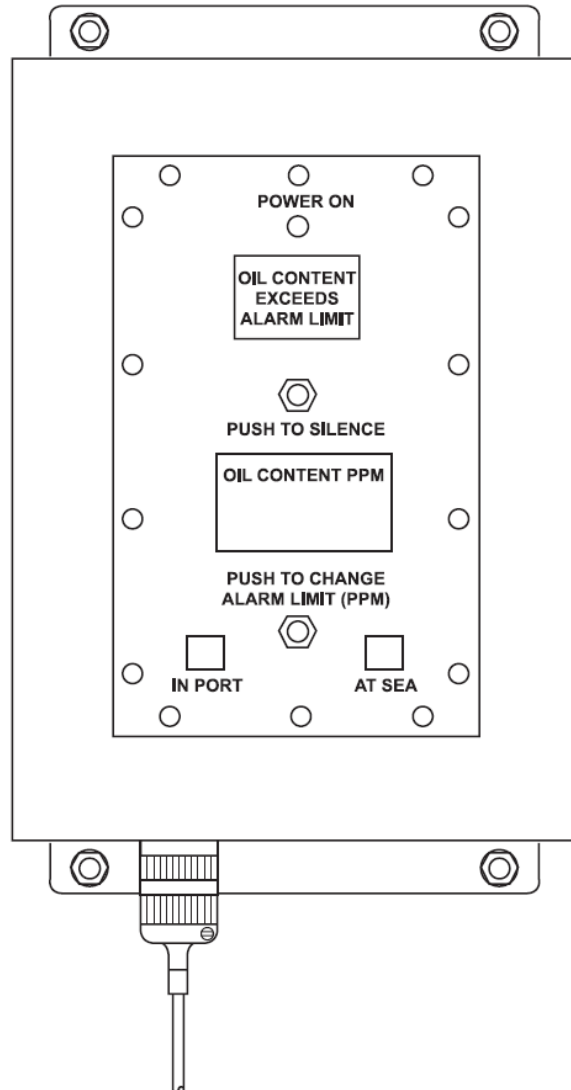
Remarks: None

Notes: None

Performance Steps

1. Demonstrate basic knowledge for troubleshooting procedures of an oily water separator.

a. Oil Content Monitor (OCM) has no power.



Oil Content Monitor
Figure 551-88L-3069_01

(1) Check to see if the red indicator is illuminated on the diverter valve position indicator?

(2) Check the OCM SYSTEM circuit breaker.

(a) If the OCM SYSTEM circuit breaker set to ON; the indicator lamp is blown.

(b) If the OCM SYSTEM is off; turn on the system.

(3) Start the OCM.

b. Oil Content Monitor (OCM) will not start.

(1) Check and see if the red indicator is illuminated on the diverter valve position indicator.

(a) If no, go to troubleshooting steps for OCM has no power.

(b) If yes, proceed with troubleshooting procedures.

(2) Check to see if the green power indicator is illuminated on the Oil Water Separator control panel.

(a) If no, proceed to OWS control panel has no power troubleshooting procedures.

(b) If yes, proceed with troubleshooting procedures.

(3) Check to see if the OWS switch is set to manual.

(a) If no, proceed to OWS pump will not start procedures.

(b) If yes, proceed with troubleshooting procedures.

(4) Verify the OWS, OCM, and Oily Bilge valves are properly aligned.

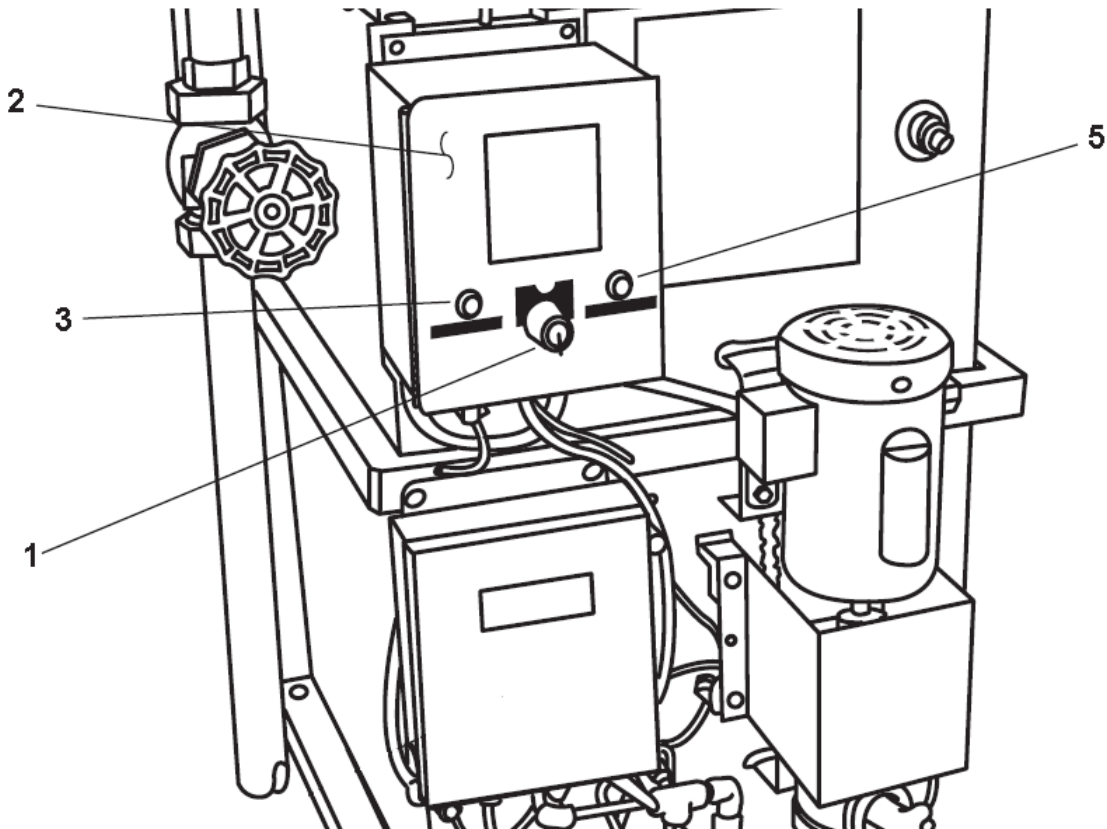
(a) If yes, notify the maintenance supervisor.

(b) If no, align the valves IAW ITAR 551-88L-1038 performance step 4.

(5) Start the OCM.

c. Oil Water Separator (OWS) control panel has no power.

(1) Check to see if the green power indicator is illuminated on the OWS panel (Figure 551-88L-3069_02, item 3).



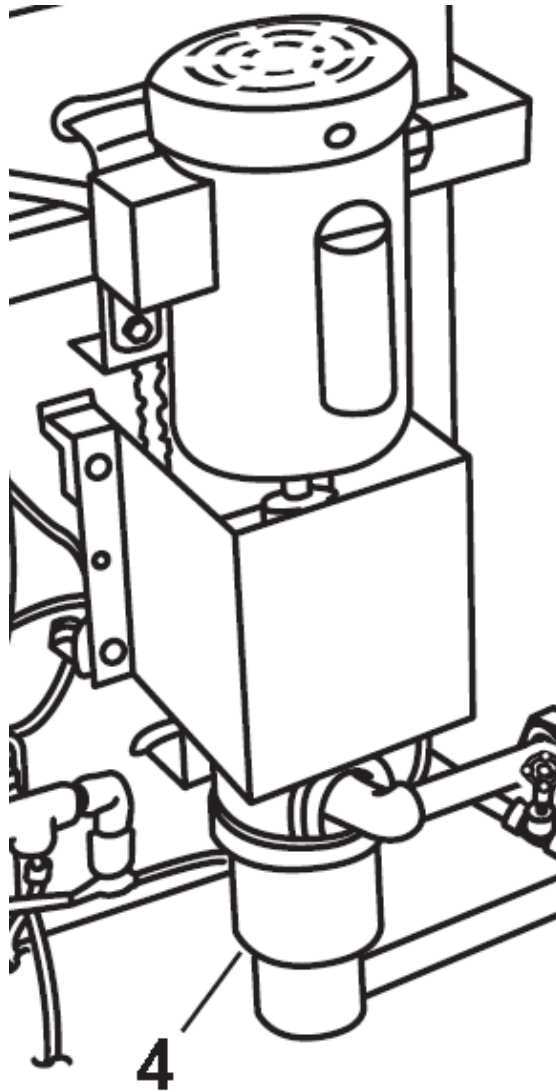
OWS Control Panel
Figure 551-88L-3069_02

(2) Check the OWS circuit breaker.

(a) If no, set the OWS circuit breaker to ON.

(b) If yes, the fuse or the power indicator lamp in the OWS control panel is blown; notify the maintenance supervisor.

d. Oil Water Separator (OWS) pump will not start (Figure 551-88L-3069_03, item 4).



Oily Water Separator Pump
Figure 551-88L-3069_03

(1) Check to see if the green power indicator is illuminated on the OWS control panel.

(a) If no, check the OWS circuit breaker.

(b) Turn on the circuit breaker; if still no power see troubleshooting procedures for OWS control panel has no power.

(2) Set the OWS switch to MANUAL.

(a) If pump does not start notify the maintenance supervisor.

(b) If yes, continue with normal operations.

2. Perform basic troubleshooting procedures for oily water separator.

a. Vacuum unusually high during normal processing.

(1) Checked to see if valves are open; if no open valves.

(2) Check inlet piping to see if they are clogged; if so report defect to maintenance supervisor.

b. Vacuum unusually low during normal processing.

(1) Check the oily water tank.

(2) Check to see if the OWS valves are closed.

(3) Make sure the OWS relief valve is closed.

(4) Ensure the tank cover gasket is tight.

(5) Check for leakage in the inlet piping and notify the maintenance supervisor.

c. OWS pump deadheaded.

(1) Check to make sure valves are open.

(2) Perform a manual backflush.

(3) Replace the coalescer beads.

(4) Report the malfunction to the maintenance supervisor.

d. Low or no effluent discharge.

(1) If the vacuum abnormally high, check vacuum unusually low during normal processing procedure.

(2) Check to see if the pump motor is turning.

(a) If pump motor is turning check vacuum unusually low during normal operation procedure.

(b) If pump is not turning the pump and coupling need to be replaced.

(3) Check the OWS circuit breaker is set to ON.

(4) Check the OWS switch is in the MANUAL position.

(5) Check to make sure 120 Vac is available at the pump motor.

WARNING

Take great care when working around energized electrical equipment. Contact between unprotected body parts and electrical conductors can cause serious injury.

(a) If yes, the pump motor needs to be replaced.

(b) If no, check the fuse for continuity; if one or both fuses are blown replace fuses.

e. Pump noisy.

(1) Check to see if the pump is receiving sufficient fluid.

(2) Check to make sure the pump coupling is intact.

(3) Check to make sure the pump is securely mounted and aligned.

(a) If no, notify maintenance supervisor.

(b) If yes, pump is defective, notify maintenance supervisor.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: None

Evaluation Preparation: None

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Demonstrated basic knowledge for troubleshooting procedures of an oily water separator.			
a. Oil Content Monitor (OCM) has no power.			
b. Oil Content Monitor (OCM) will not start.			
c. Oil Water Separator (OWS) control panel has no power.			
d. Oil Water Separator (OWS) pump will not start.			
2. Performed basic troubleshooting procedures for oily water separator.			
a. Vacuum unusually high during normal processing.			
b. Vacuum unusually low during normal processing.			
c. OWS pump deadheaded.			
d. Low or no effluent discharge.			
e. Pump noisy.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	TM 55-1925-285-13&P	OPERATOR, UNIT AND DIRECT SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88L-1038	Demonstrate Basic Knowledge of an Oil and Water Separator	551 - Transportation (Individual)	Analysis
551-88L-1038	Demonstrate Basic Knowledge of an Oil and Water Separator	551 - Transportation (Individual)	Approved
551-88L-1038	Demonstrate Basic Knowledge of an Oil Water Separator	551 - Transportation (Individual)	Obsolete

Supported Collective Tasks : None

ICTL Data :

ICTL Title	Personnel Type	MOS Data
88L30 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL3, Duty Pos: TFR, LIC: EN
88L40 Watercraft Engineer	Enlisted	MOS: 88L, Skill Level: SL4, Duty Pos: TGB, LIC: EN, SQL: O